

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.



Biotechnology Notes

Volume 4 Number 3

U.S. Department of Agriculture

March 1991

Biotechnology Notes, a compilation of agency activities, news events, and upcoming meetings, is prepared for members of the U.S. Department of Agriculture's (USDA) Committee on Biotechnology in Agriculture (CBA) by USDA's Office of Agricultural Biotechnology (OAB).

INSIDE USDA

ABRAC DISCUSSES GUIDELINES; LSU FIELD TEST

USDA's Agricultural Biotechnology Research Advisory Committee (ABRAC) met February 20-21 in Washington, DC. Members were briefed on the current status of the proposed research guidelines, now published in the Federal Register for public comment until April 2. A USDA interagency task force has been formed to develop recommendations for implementing the guidelines. Both ABRAC and the public will have an opportunity to comment on any USDA implementation proposal.

ABRAC members also heard a presentation by Gary Breitenbeck, researcher at Louisiana State University (LSU), concerning a field test of Bradyrhizobium japonica that was conducted by Biotechnica International in 1989 under a consent order from the Environmental Protection Agency (EPA). LSU would like to return the field to use in other studies but is unsure what to do in view of the continued presence of the microorganism. ABRAC members discussed whether the uniqueness of the site presented any opportunities for follow-up scientific research that should be considered by USDA.

ABRAC formed two new working groups: risk assessment/priority setting and organism classification/confinement. Members also discussed possible cooperative activities between ABRAC and EPA's Biotechnology Science Advisory Committee. The ABRAC meets again May 22-23 in Washington, DC.

ISRAEL SEEKING HARMONIZATION OF BIOTECH REGULATIONS

Israeli agricultural representatives met with Terry Medley, Director of the Biotechnology, Biologics and Environmental Protection (BBEP) unit at the Animal and Plant Health Inspection Service (APHIS), and Sally McCammon, BBEP senior plant pathologist, January 23, to discuss how Israel and the United States can harmonize approaches for regulating agricultural biotechnology

products. The Israeli government is also examining ways to encourage technology transfer in Israel.

ALL YOU NEED TO KNOW IN 2,000 WORDS OR LESS

If you're looking for a brief explanation of USDA's regulatory activities in biotechnology, as well as a look ahead at new issues coming down the pike, such as performance evaluation scale field testing of genetically modified plants, call BBEP/APHIS at 301-436-7601 and ask for their updated handout.

NEWS AROUND THE COUNTRY (AND THE WORLD)

SASKATCHEWAN: AG BIOTECHNOLOGY IN WESTERN CANADA

In the province known for years as "the bread basket of the world," Saskatchewan is now making tracks in the biotechnology research and development field. Some of the areas being pursued include crop resistance to disease and pests, veterinary diagnostic techniques and methods of increasing the productivity and hardiness of trees.

To help move the technology forward, the province established Ag-West Biotech Inc., a non-profit private company, which coordinates exchanges between the research community and industry. Ag-West is also looking for new technologies to bring to Western Canada. Anyone interested in learning more about the company or about agricultural biotechnology in Western Canada should contact Murray McLaughlin at 306-975-1939. The FAX number is 306-975-1966.

LARGE SCALE RELEASES WORK PROJECT

The Organization for Economic Cooperation and Development's (OECD) Working Group III on Safety Assessment of the Group of National Experts on Safety in Biotechnology has begun a work project to examine the additional scientific issues and principles involved when moving from small scale to larger scale introductions of genetically modified organisms. The project will identify issues pertaining to large scale introductions, analyze results from selected model systems, and examine the feasibility of developing generic principles.

At the request of the chairman of Working Group III, a U.S. interagency drafting committee, chaired by Charles Hess, USDA Assistant Secretary for Science and Education, is preparing a discussion paper on this OECD initiative.

EVERYTHING YOU NEED TO KNOW ABOUT SOCIOECONOMICS

A new reference book containing concise background information on the socioeconomic aspects of agricultural biotechnology is about to be unveiled. Entitled Agricultural Biotechnology: Issues and Choices, the book is geared to administrators of Federal agencies, deans of agriculture, directors of agricultural research, directors in the Cooperative Extension Service, and other officials.

An additional leaflet series serves as a companion piece to the chapters in the basebook. The leaflets, printed under the same general title, can be used as handouts at public policy meetings, as student reading assignments, or as background material for general distribution.

Both the basebook and the leaflets were commissioned by the Committee on Biotechnology, Division of Agriculture, National Association of State Universities and Land Grant Colleges and supported in part under a cooperative agreement with USDA's Cooperative State Research Service.

Anyone interested in meeting the authors and editors who contributed to the book is invited to attend a special "book release event" scheduled for April 9 at 3 p.m. at the J. W. Marriott Hotel, 1331 Pennsylvania Ave, NW, Washington, DC. The media is invited to attend. For more details call either Bill Baumgardt or Deborah Gabbard at Purdue University at 317-494-8369.

DBIR EXPANDS DATABASE

The Directory of Biotechnology Information Resources (DBIR) is an online computer system started in 1989. Today, DBIR contains more than 1600 individual records that describe organizations, networks, other databases, culture collections, specimen banks, and publications. It is maintained by the National Library of Medicine (NLM), which is located on the campus of the National Institutes of Health in Bethesda, Md. To find out how to contribute to DBIR or how to become a registered database user, call the NLM at 301-496-6531.

SWEET POTATOES IN SPACE

Space travelers of the future need not worry about taking along enough food: chances are they will be growing some of their own -- hydroponically. The National Aeronautics and Space Administration (NASA) has selected eight such foods considered to be of high nutritive value, and Tuskegee University in Tuskegee, Alabama, and other universities are developing the technology to grow these foods in a controlled space environment.

Working with the sweet potato, the Tuskegee researchers have developed a hydroponic system that uses a nutrient film technique in which a thin film of nutrient-enriched water solution passes over the root system of the plant within the growing channel. According to Tuskegee Horizons, a semi-annual publication from Tuskegee University, this is the first time this method has been used successfully with a root crop.

In other sweet potato projects, Tuskegee scientists are using Agrobacterium to introduce desirable traits. They are also collaborating with Cornell University to test the effectiveness of using the "gene gun" approach to introduce useful genes.

Sweet potato research at Tuskegee is partly funded by USDA's Cooperative State Research Service. A major international symposium, "Sweet Potato Technology for the 21st Century," is also being partly funded by USDA and will take place at Tuskegee University June 2-6. For more details call 205-727-8333.

NORTH CAROLINA BIOTECH CENTER LAUNCHES SOURCEBOOK

Four years ago North Carolina's Biotechnology Center started a project to train that state's middle and high school teachers to teach biotechnology. At last count, some 630 teachers have completed the program and passed on their knowledge to about 138,000 students throughout the state. Building on this success, the Center has teamed up with the National Association of Biology Teachers to create a sourcebook of ideas and lessons that make teaching about biotechnology easier.

According to Techne, the Center's news publication, the sourcebook allows teachers to introduce the biological concepts, applications, and societal issues of biotechnology to students of all skill levels from grades 7 to 12. The teachers designed the lessons after first testing them in the classroom. If you would like a copy, which sells for less than \$20, write to the National Association of Biology Teachers, 11250 Roger Bacon Dr., #19, Reston, Va. 22090. To learn more about the Center's secondary education project, call its director, Rob Matheson, at 919-541-9366.

ONE-STOP SHOPPING AT FDA

The Food and Drug Administration (FDA) has created a new Office of Small Business, Scientific and Trade Affairs within the Office of the Commissioner. According to its acting director, Mary Ann Danello, the office serves as an information and education gateway for companies, societies, associations, or any other regulated group that wants to know about FDA's regulations and procedures. Several other FDA offices offer similar outreach services but for

different audiences. To learn more about the new Office of Small Business, Scientific and Trade Affairs, call 301-443-6776.

IN CASE YOU WEREN'T THERE

YOUNG AND MEDLEY ADDRESS AAAS MEMBERS

Alvin Young, Director of the Office of Agricultural Biotechnology, and Terry Medley, Director of BBEP, APHIS, discussed international issues regarding biosafety policy at the annual meeting of the American Association for the Advancement of Science, February 16, in Washington, DC. Young gave an overview of USDA's new proposed research guidelines, explaining how they provide researchers with principles for assessing the safety of research with specific organisms. He also outlined options for implementing the guidelines and went on to describe both USDA's plant genome program and the national research initiative.

Medley described the importance of global harmonization of regulations so that new food technologies can be safely transferred to people around the world, especially to the thousands who are malnourished or dying from hunger every day.

NEW PUBLICATIONS

- "Biotechnologies and Food: Assuring the Safety of Foods Produced by Genetic Modification," is the title of a report prepared by the International Food Biotechnology Council. The entire report appears in Regulatory Toxicology and Pharmacology, Volume 12, Number 3, December 1990, Part 2. Published by Academic Press Inc.
- "Certification for the Planned Introduction of Transgenic Plants into the Environment," by Sally McCammon, APHIS/BBEP senior plant pathologist, and Terry L. Medley, APHIS/BBEP Director. This chapter appears in The Molecular and Cellular Biology of the Potato. Edited by Michael Vayda and William Park. Published by CAB International, Oxon, UK, 1990. For more details call BBEP/APHIS at 301-436-7601.
- "Plant Biotechnology Research for Developing Countries." Report of a panel of the board on science and technology for international development. Prepared by the National Research Council. National Academy Press. Washington, DC. 1990. To order write to Board on Science and Technology for International Development, Office of International Affairs, National Research Council, 2101 Constitution Ave., N.W., Washington, DC 20418.

● Markets for Transgenic Animals -- A Worldwide Study of Applications in Breedstock, Production of Therapeutic Proteins and Research Animals. Prepared by the Technology Management Group. January 1991. \$1,495.00. For details on ordering call T. Purinton at 203-786-5445. The FAX number is 203-786-5449.

● Report on National Biotechnology Policy. Prepared by the President's Council on Competitiveness. February 1991. To receive a copy call the White House Press Office at 202-456-1414.

UPCOMING MEETINGS

March 7-9: International Conference of the Optimization of Plant Productivity. Cocoa Beach, Fla. Sponsored by NASA and USDA. For details call Pat Russell at the American Institute of Biological Sciences on 202-628-1500.

March 10-14: Symposium on Plant Breeding in the 1990's. Raleigh, NC. Call H. T. Stalker at 919-737-3281.

March 11-13: Information Workshop on Release of Organisms into the Environment. The focus is on developing and implementing a global information network linking data resources around the world. Rockville, Md. Internationally sponsored. Call Lois Blaine at 301-231-5585.

March 19-21: International Symposium on Chemical Applications of Enzyme Biotechnology. Texas A&M University. Write to A. E. Martell, IUCCP Coordinator, Department of Chemistry, Texas A&M University, College Station, Texas 77843-3255.

March 25-27: Third PaineWebber Bio/Technology Conference. Coronado, Calif. Write to Stelios Papadopoulos, PaineWebber, P.O. Box 1406, New York, N.Y.; or call 212-713-6275.

April 9-10: Bioengineering of New Animal Food Sources. University of Connecticut, Storrs Campus. For more details, call Anne Nickerson at 203-486-3231.

April 10-11: Veterinary Advisory Committee Meeting of the Food and Drug Administration. Bethesda Holiday Inn, 8120 Wisconsin Ave., Bethesda, MD. Call Gary Stefan at 301-443-0830.

April 10-11: "U.S. Agriculture: Forces Reshaping the Future," sponsored by the Agribusiness Group of Kline and Co. Chicago, Ill. Call Anna Stuart at 201-227-6262.

April 16-18: British Society for Plant Pathology. University of Wales, Swansea. For more details call 0248-351151; or FAX your inquiry to 0248-361429.

April 16-20: Biotechnology 2000. The First Pacific Basin Conference on Biotechnology. Bali, Indonesia. For more information, call the Oxford Business Group Limited in Oxford, England at 0865-53688. The FAX number is 0865-53805 (International Code: 01044+).

April 17-19: "Doing Business with the Japanese." Seattle, Wash. Sponsored by the University of Washington's Graduate School of Business Administration and the Jackson School of International Studies and the School of Law. Program intended for executives from advanced technology companies and includes the biotechnology field. For more details call 206-543-8560. The FAX number is 206-543-6872.

April 19-20: Plant Biotechnology and its Contribution to Plant Development and Improvement. Geneva, Switzerland. Write to Expoflore-Symposium, 8, rue du 31-Decembre. CH-1207, Geneva, Switzerland; or call 41.22.736.59.49.

April 22-24: Alltech Symposium on Biotechnology in the Feed Industry. Lexington, KY. Call Dr. Pearse Lyons at 606-885-9613.

April 22-25: International Conference on Environmental Biotechnology. Ostend, Belgium. Write to Rita Peys, c/o TI-K.VIV, Desguinlei 214 B-2018, Antwerpen, Belgium; or call 32.3.216.09.31.

April 29-30: ATCC Biotechnology Patent Conference. Washington, DC. Call 301-881-2600.

May 13-16: Fifth International Biotechnology Meeting. Washington, DC. Sponsored by the Association of Biotechnology Companies. For details call Richard Okiuye or Adi Niv at 202-234-3330.

BIOTECHNOLOGY NOTES is prepared by Marti Asner, public affairs specialist in USDA's Office of Agricultural Biotechnology. Suggestions for items to include in future issues are always appreciated and may be sent to USDA/OAB, Room 1001, Rosslyn Plaza East, 1621 N. Kent Street, Arlington, VA 22209; or phone 703-235-4419. The FAX number is 703-235-4429.

NOTES